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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,366	10/22/2001	Rainer Koniger	215157US0PCT	9236

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

TARAZANO, DONALD LAWRENCE

ART UNIT PAPER NUMBER

1773

DATE MAILED: 01/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

004

Office Action Summary

Application No.

09/926,366

Applicant(s)

KONIGER ET AL.

Examiner

D. Lawrence Tarazano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10-30-2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-13 and 17-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5-13, 17-27 and 31 is/are allowed.
- 6) ☒ Claim(s) 27-30 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 27-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klun et al. (4,855,184).

3. Klun et al. teach ethylenically unsaturated polyurethane materials coated on the surface of polyester films (unprimed PET) forming a two-layer structure. The examples teach polymers having the claimed glass transition temperatures (Table 1), in which coatings of these materials exist in an "un-cured state" (especially example 1). The un-cured coatings can be removed at this point if the finish is blemished or additional layers may be added to produce a thicker coating (column 22, lines 33+). The resulting dried coatings can then be cured by radiation (column 20, lines 55+ and column 22, lines 45+).

4. The materials can be applied by a variety of coating methods and can be used on a variety of substrates including wood, plastic, and metal (column 22, lines 27+). Furthermore, the materials can be used in molding and extrusion applications (column 4, lines 7+, column 23, lines 23+).

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TABLE I

Example	Mw	Mn	Pi	Tg ('C.)
1	43,900	1,400	31.4	43-60
2	53,100	2,400	22.2	27-51
3	24,100	2,900	8.3	37-54
4	22,200	2,100	7.9	42-56
5	21,900	2,780	7.9	39-58
8	88,900	6,090	14.6	34-60
9	17,400	2,430	7.2	32-60
10	48,700	5,430	9.0	32-58
11	41,900	5,100	8.2	34-56
12	59,600	6,130	9.9	34-53
13	44,200	6,450	6.9	39-52
14	22,800	3,680	6.2	30-66
16	26,500	4,710	5.6	20-49
17	120,000	7,410	16.2	20-56
C1	—	—	—	34-48
C2	36,500	14,400	2.5	-14-42

5. Klun et al. as discussed above teach coated articles in which the uncured coating has a glass transition temperature above 40 deg as claimed (example 1).

6. Claim 27 is directed to a three-layer structure having a colored interlayer. Klun et al. teach that the clear coating can be used on wood, plastics or metal. They clearly teach that coating materials can be applied a primed surface (Comparative examples 1 and 2); furthermore the instant coatings are used as a clear coating on the surface of articles.

7. Since pigmented coating are applied for decorative purposes (e.g. as a transparent or opaque colorant), it would have been obvious to one having ordinary skill in the art at the time the invention was made to have coated the structures taught by Klun et al. using a colorant layer when one was desired to change the color of the article.

8. (Claims 28) Furthermore, If a colored layer was desired, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have extruded the additional layer so that the article would have the hard surface layer taught, but have a colored

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layer for decorative purposes. Extrusion would give an even thickness since the material comes out of a fixed die head. The overlying finish layer could protect the pigmented layer.

9. (Claim 30) As shown in the examples taught by Klun et al. the materials taught could be coated on films the materials can also be coated on wood products. It would have been obvious to make a decorative film or a coated wooded veneer product coated with the materials taught by Klun et al. which could be applied to exposed surfaces to provide a durable decorative finish on articles (e.g. furniture, walls, dashboard etc) via an adhesive layer.

10. Regarding claim 31, the polymers are thermoplastic as would be extruded without the need of solvents etc...

Allowable Subject Matter

11. Regarding Claims 1-3, 5-12, 17-24 and 31, the prior art fails to suggest a structure having an intermediate layer of the claimed materials.

Response to Arguments

12. Applicant's arguments with respect to claims 1-13 and 17-24 have been considered but are not persuasive. The main thrust of claims 27 and those claims, which depend from it is a "colored" intermediate layer. The examiner maintains the position that such a layer would be added for decorative purposes.

13. The reference also suggests that the materials may be extruded so that solvent would not be necessary as in a coating process.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Lawrence Tarazano whose telephone number is (571)-272-1515. The examiner can normally be reached on 8:30 to 6:00 (off every other Friday).

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

D. Lawrence Tarazano
Primary Examiner
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A handwritten signature in black ink, appearing to be 'DLT' with a stylized flourish.

dlt
January 11, 2004